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09/606,769	06/29/2000	Richard A. Balch	11-ME-472	6990

7590

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EXAMINER

MORRIS, ANDREW P

ART UNIT

PAPER NUMBER

2857

DATE MAILED: 07/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/606,769

Applicant(s)

BALCH ET AL.

Examiner

Andrew P Morris

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3-31 and 33-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,3-18,31 and 33-38 is/are allowed.
- 6) ☒ Claim(s) 19-21,24-28,30,49-51,54-58 and 60 is/are rejected.
- 7) ☒ Claim(s) 22,23,29,52,53 and 59 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 21 and 51 are rejected under 35 U.S.C. 102(b) as being anticipated by Pyle et al. (US Patent No. 5,467,286). Pyle et al. discloses a method of metering energy consumption comprising the steps of controlling the meter using a first program in a first section of memory (col. 2 lines 32-27), writing a second program into a second portion of memory (col. 2 lines 34-35), and switching control of the meter to the second program once it has been written to memory (col. 2 lines 35-37).

3. Claims 24-26 and 54-56 are rejected under 35 U.S.C. 102(b) as being anticipated by Allgood (US Patent No. 4,568,934), which discloses a method and apparatus for computing the total power consumption detected by multiple meters. The system of Allgood comprises multiple meters at remote locations that periodically (daily in one embodiment, col. 67 lines 37-42) transmit consumption data, using a type of pulse communication (col. 6 lines 27-32), to a central meter where the consumption data from the individual meters is totaled and the total is stored in a location in a memory (col. 67 lines 37-42). As an intermediate step in the energy calculation method of Allgood, the consumption data from the individual meters is scaled to ensure the energy data falls within a predetermined digitizing range (col. 14 lines 45-48).

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4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 19, 20, 49 and 50 are rejected under 35 U.S.C. 102(e) as being anticipated by Rector et al (US Patent No. 6,115,676).

Rector et al. discloses an electricity meter that obtains load profile data during normal operation and exports said data to a service control center upon request from the service control center (col. 10 lines 26-38).

***Claim Rejections - 35 USC § 103***

6. Claims 27, 30, 57 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atherton et al. (US Patent No. 5,315,235). Atherton et al. disclose an electric meter that periodically checks for pending changes in the mode of operation and effects a change if a pending change is detected (col. 2, lines 15-19). Furthermore, Atherton et al. present a change to a time-of-use schedule as a possible change in the mode of operation (col. 2, lines 56-58). Atherton et al. do not disclose checking for pending changes in mode of operation at temporal period boundaries. Atherton instead discloses checking for pending changes in the mode of operation at the beginning of each software routine. The examiner takes official notice that the scheduling of important tasks at regular temporal boundaries is well known in the art. Given the importance of effecting a timely change in a time-of-use schedule (such a change is important because it affects a utility company's revenue) it would have been obvious to one of ordinary

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skill in the art at the time of invention to execute the mode checking step of Atherton et al. at the boundaries of regular temporal intervals in order to avoid the possibility of having a large time interval between the time when a change in mode command is issued and when the corresponding mode change takes affect (such a situation could arise if a software routine that is to be run is particularly long, in which case the checking for a pending change in mode step would be correspondingly delayed).

7. Claims 28 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atherton et al. (US Patent No. 5,315,235), as modified above, in view of Atherton et al. (US Patent No. 5,270,949). Atherton et al. '235, as modified above, teach a method for metering energy comprising the steps of periodically checking (at temporal boundaries) for a pending change in the mode of operation and effecting that change if a pending change is detected, with said method being implemented through the use of a microcomputer (col. 4, lines 44-46). Atherton '235 does not teach a method for the continuation of an action interrupted by a power failure. Atherton et al. '949 teach a method for checking the mode of operation of an electricity meter after restoring power to the meter and continuing the operation of that mode once the check is complete (col. 2, lines 38-45). It would have been obvious to one of ordinary skill in the art at the time of invention to include the task continuation feature of Atherton et al. '949 to the meter of Atherton et al. '235 to create a meter, operable in multiple modes, that has the ability to continue execution of a task following a power failure.

***Allowable Subject Matter***

8. Claims 1, 3-18, 31, and 33-48 are allowed.

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The prior art does not disclose a meter capable of altering the metering form type in response to a voltage change during normal operation.

9. Claims 22, 23, 29, 52, 53 and 59 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

10. Applicant's arguments, see Amendment A, filed 4/23/03, with respect to claims 1, 3-18, 31, and 33-48 have been fully considered and are persuasive. The rejection of said claims has been withdrawn.

11. Applicant's arguments filed 4/23/03, with respect to claims 19, 20, 49 and 50, have been fully considered but they are not persuasive. The applicant asserts that Rector et al. "do not describe nor suggest continuing to generate metering quantities while providing the static copy of the selected revenue-related data to the external device". However, Rector et al. do in fact teach continuing to generate metering quantities while providing a static copy of current load profile data; specifically, the meter "normally operates so that at the end of every minute, a snapshot of the pulses collected in the previous minute is taken and stored in a queue for subsequent processing" (col. 10, lines 26-29).

12. Applicant's arguments filed 4/23/03, with respect to claims 21 and 51, have been fully considered but they are not persuasive. The applicant asserts that Pyle et al. "do not describe nor suggest a method that includes using a first program in a first portion of the memory, writing a second program into a second portion of the memory and switching control of the meter to the

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second program when the second program has been written to the second portion of the memory”. However, Pyle et al. do in fact teach the aforementioned method. Specifically, Pyle et al. teach using a first program in a first portion of the memory (“main functionality firmware”), writing a second program into a second portion of the memory (“the writing routine is copied to the second memory”, col. 2, line 35), and switching control of the meter to the second program when the second program has been written to the second portion of the memory (“the writing routine is copied to the second memory and executed therefrom...”, col. 2, line 36).

13. Applicant's arguments filed 4/23/03, with respect to claims 24-26 and 54-56, have been fully considered but they are not persuasive. The applicant asserts that Allgood does not disclose a method “for metering energy consumption with an electric meter wherein the method includes generating metering quantities for a first voltage source”. Allgood disclose a central metering station that collects consumption data from a plurality of remote meters. In regard to the language of claims 24 and 54, the combination of the central station and any one of the remote meters constitute an electric meter “generating metering quantities for a first voltage source”. The distributed nature of the system disclosed by Allgood does not take away from this fact. This first subsystem (the combination of the central station and a first remote meter) subsequently receives input data from other meters associated with a load and processes the input data to produce a value representative of the total energy consumed (col. 67, lines 37-42).

### *Conclusion*

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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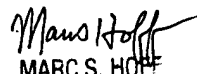
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew P Morris whose telephone number is (703) 605-4213. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S Hoff can be reached on (703) 308 1677. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7414 for regular communications and (703) 746-7414 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3431.

apm  
July 28, 2003

  
MARC S. HOFF  
SUPERVISORY PATENT EXAMINER  
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